AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (previously presented) A stent for expansion from a compressed first condition into an expanded second condition in which it holds a vessel in an expanded state in an implantation location, comprising:

a tubular body with a peripheral surface formed from a number of annular support portions that comprise bar element portions, wherein the annular support portions are connected in a longitudinal direction of the stent at an engagement point by way of connecting bars;

wherein the bar element portions of at least a first annular support portion extend in a meander configuration in a peripheral direction of the stent, and the bar element portions adjoin in series at a turning point in an angle having a V-shape in the compressed first condition of the stent, each bar element portion extending between two turning points and being defined by a line extending tangentially from a vertex of each V-shape and wherein a plurality of the lines extending tangentially from the vertices of the V-shapes are essentially perpendicular to a longitudinal axis of the tubular body, characterized in that all of the bar element portions of the first annular support portion extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner, and wherein all of the bar element portions of the first annular support portion extend to an identical extent and in a non-offset manner in the longitudinal direction on at least one side of the first annular portion, and

wherein the bar element portions are either entirely concave over the entire length of the bar element portion or convex over the entire length of the bar element portion.

2. (original) The stent of claim 1, wherein:

the bar element portions are of a continuously curved configuration.

3-4. (cancelled)

5. (previously presented) The stent of claim 1, wherein:

the bar element portions are adapted to keep stresses that occur upon flexural deformation of the stent with respect to the structural axis thereof below a plastic deformation limit of the material upon being moved to the implantation location, by at least one of: being curved in such a way and having a width of the bar elements vary over a length thereof.

6. (previously presented) The stent of claim 2, wherein:

the bar element portions are adapted to keep stresses that occur upon flexural deformation of the stent with respect to the structural axis thereof below a plastic deformation limit of the material upon being moved to the implantation location, by at least one of: being curved in such a way and having a width of the bar elements vary over a length thereof.

7-8. (cancelled)

9. (original) The stent of claim 6, further comprising:

a number of adjacent first annular support portions whose bar element portions are curved in the same direction.

10. (original) The stent of claim 5, further comprising:

a number of adjacent first annular support portions whose bar element portions are curved in the same direction.

11. (cancelled)

12. (original) The stent of claim 6, further comprising:

a number of adjacent first annular support portions, wherein the direction of curvature of the bar element portions of the annular support portions changes in the longitudinal direction of the stent.

13. (original) The stent of claim 5, further comprising:

a number of adjacent first annular support portions, wherein the direction of curvature of the bar element portions of the annular support portions changes in the longitudinal direction of the stent.

14. (cancelled)

15. (original) The stent of claim 12, wherein:

the direction of curvature of the bar element portions changes from one annular support portion to another or the annular support portions have bar element portions in pairs with the same direction of curvature.

16. (original) The stent of claim 13, wherein:

the direction of curvature of the bar element portions changes from one annular support portion to another or the annular support portions have bar element portions in pairs with the same direction of curvature.

17. (original) The stent of claim 16, wherein:

the connecting bars compensate for the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent.

18. (original) The stent of claim 15, wherein:

the connecting bars compensate for the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent.

19. (cancelled)

20. (original) The stent of claim 10, wherein:

the connecting bars compensate for the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent.

21. (original) The stent of claim 9, wherein:

the connecting bars compensate for the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent.

22. (cancelled)

23. (original) The stent of claim 1, wherein:

the connecting bars compensate for the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent.

24. (original) The stent of claim 23, wherein:

the engagement points and the length of the connecting bars are so selected that the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent is substantially compensated.

25. (cancelled)

26. (original) The stent of claim 21, wherein:

the engagement points and the length of the connecting bars are so selected that the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent is substantially compensated.

27. (original) The stent of claim 20, wherein:

the engagement points and the length of the connecting bars are so selected that the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent is substantially compensated.

28. (cancelled)

29. (original) The stent of claim 18, wherein:

the engagement points and the length of the connecting bars are so selected that the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent is substantially compensated.

30. (original) The stent of claim 17, wherein:

the engagement points and the length of the connecting bars are so selected that the reduction in length of the bar elements in the longitudinal direction of the stent upon expansion of the stent is substantially compensated.

31. (withdrawn) The stent of claim 30, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

32. (withdrawn) The stent of claim 29, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

33. (cancelled)

34. (withdrawn) The stent of claim 27, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

35. (withdrawn) The stent of claim 26, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

36. (cancelled)

37. (withdrawn) The stent of claim 24, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

38. (withdrawn) The stent of claim 1, wherein:

the bar elements meander in a periodic manner in the peripheral direction of the stent; and

in the compressed first condition of the stent, the connecting bars, which are rectilinear, extend between two mutually facing turning points of two

adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander.

39. (withdrawn) The stent of claim 38, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

40. (withdrawn) The stent of claim 37, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

41. (cancelled)

42. (withdrawn) The stent of claim 35, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

43. (withdrawn) The stent of claim 34, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

44. (cancelled)

45. (withdrawn) The stent of claim 32, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

46. (withdrawn) The stent of claim 31, wherein:
the connecting bars are adapted to increase the flexibility of the stent.

47. (previously presented) The stent of claim 1, wherein:
at least a portion of the connecting bars are adapted to increase the flexibility of the stent.

48. (previously presented) The stent of claim 47, wherein:

at least a portion of the connecting bars are V-shaped.

49. (withdrawn) The stent of claim 46, wherein:
the connecting bars are V-shaped.

50. (withdrawn) The stent of claim 45, wherein:
the connecting bars are V-shaped.

51. (cancelled)

52. (withdrawn) The stent of claim 43, wherein:
the connecting bars are V-shaped.

53. (withdrawn) The stent of claim 42, wherein:
the connecting bars are V-shaped.

54. (cancelled)

55. (withdrawn) The stent of claim 40, wherein:
the connecting bars are V-shaped.

56. (withdrawn) The stent of claim 39, wherein:
the connecting bars are V-shaped.

57. (withdrawn) The stent of claim 56, wherein:
the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

58. (withdrawn) The stent of claim 55, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

59. (cancelled)

60. (withdrawn) The stent of claim 53, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

61. (withdrawn) The stent of claim 52, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

62. (cancelled)

63. (withdrawn) The stent of claim 50, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

64. (withdrawn) The stent of claim 49, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

65. (previously presented) The stent of claim 48, wherein:

the V-shaped connecting bars engage a central region of the bar element portions and wherein each V-shaped connecting bar is parallel to at least a portion of the bar element portion that the V-shaped connecting bar engages.

66. (cancelled)

67. (withdrawn) A stent for expansion from a compressed first condition into an expanded second condition in which it holds a vessel in an expanded state in an implantation location, comprising:

a tubular body with a peripheral surface formed from a plurality of annular support portions that comprise bar elements, wherein the annular support portions are connected in a longitudinal direction of the stent at an engagement point by way of connecting bars;

wherein the bar elements of at least a first annular support portion extend in a meander configuration in a peripheral direction of the stent, each bar element consisting of first and second bar element portions that adjoin at a turning point in an angle having a V-shape in the compressed first condition of the stent, characterized in that all of the first and second bar element portions of the first annular support portion extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner, and

wherein the connecting bars contact the first annular support portion in a repeating manner following a repeating pattern consisting of at least two successive turning points in the meander configuration contacting at least a first and a second connecting bar, respectively, followed by at least two turning points that do not contact a connecting bar;

wherein the first and second bar element portions are either entirely concave over the entire length of the bar element portion or convex over the entire length of the bar element portion.

68. (withdrawn) The stent of claim 67, further comprising:

a number of adjacent first annular support portions whose bar element portions are curved in the same direction.

69. (withdrawn) The stent of claim 67, further comprising:

a number of adjacent first annular support portions, wherein the direction of curvature of the bar element portions of the annular support portions changes in the longitudinal direction of the stent.

70. (withdrawn) The stent of claim 69, wherein:

the connecting bars are rectilinear and extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander in the compressed first condition of the stent.

71. (withdrawn) The stent of claim 67, wherein:

the connecting bars are rectilinear and extend between two mutually facing turning points of two adjoining bar elements that are displaced relative to each other by between one and two periods of the bar element meander in the compressed first condition of the stent.

72. (withdrawn) The stent of claim 67, wherein:

the direction of curvature of the bar element portions changes from one annular support portion to another or the annular support portions have bar element portions in pairs with the same direction of curvature.

73. (previously presented) A stent for expansion from a compressed first condition into an expanded second condition in which it holds a vessel in an expanded state in an implantation location, comprising:

a tubular body with a peripheral surface formed from a plurality of annular support portions that comprise bar element portions, wherein the annular support portions are connected in a longitudinal direction of the stent at an engagement point by way of first and second connecting bars;

wherein the bar element portions of at least a first annular support portion extend in a meander configuration in a peripheral direction of the stent, and the

bar element portions adjoin in series at a turning point in an angle having a V-shape in the compressed first condition of the stent, characterized in that all of the bar element portions of the first annular support portion extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner,

and wherein the bar element portions extend between two turning points and are defined by a line extending perpendicular to a line bisecting an angle of the V-shape and passing through the vertex of the V-shape, and wherein a plurality of the lines extending perpendicular to the lines bisecting the angles of the V-shapes and passing through the vertices of the V-shapes are essentially perpendicular to a longitudinal axis of the tubular body,

and wherein all of the bar element portions of the first annular support portion extend to an identical extent in the longitudinal direction in a non-offset manner on at least one side of the annular portions,

and wherein all of the turning points on a first longitudinal end of the first annular support portion contact substantially rectilinear first connecting bars, said first connecting bars additionally contacting turning points of an adjoining annular support portion; and

wherein the bar element portions are either entirely concave over the entire length of the bar element portion or convex over the entire length of the bar element portion

and wherein each second connecting bar engages a central region of a bar element portion and further wherein each second connecting bar is parallel to at least a portion of the bar element portion to which the second connecting bar engages.

74. (currently amended) The stent according to claim 73, ~~additionally comprising~~ wherein the second connecting bars are V-shaped ~~connecting bars~~.

75. (previously presented) The stent according to claim 74, wherein the direction of curvature of the bar element portions changes from one annular

support portion to another or the direction of curvature of bar element portions of pairs of annular support portions are the same.

76. (withdrawn) The stent according to claim 74, wherein the bar element portions of all of the annular support portion have a direction of curvature in a single peripheral direction.

77. (previously presented) The stent of claim 73, further comprising:

a number of adjacent first annular support portions, wherein the direction of curvature of the bar element portions of the annular support portions changes in the longitudinal direction of the stent.

78. (withdrawn) The stent according to claim 73, wherein the bar element portions of all of the annular support portion have a direction of curvature in a single peripheral direction.

79. (withdrawn) A stent for expansion from a compressed first condition into an expanded second condition in which it holds a vessel in an expanded state in an implantation location, comprising:

a tubular body with a peripheral surface formed from a plurality of annular support portions that comprise bar elements, wherein the annular support portions are connected in a longitudinal direction of the stent at an engagement point by way of connecting bars;

wherein the bar elements of at least a first annular support portion extend in a meander configuration in a peripheral direction of the stent, each bar element consisting of first and second bar element portions that adjoin at a turning point in an angle having a V-shape in the compressed first condition of the stent, characterized in that all of the first and second bar element portions of the first annular support portion extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner, and wherein the direction of

curvature of each bar element portion in the first annular support portion is the opposite of the direction of curvature of each of the bar element portions of each adjoining annular support portion; and

wherein the first and second bar element portions are either entirely concave over the entire length of the bar element portion or convex over the entire length of the bar element portion.

80. (withdrawn) The stent according to claim 79, wherein the connecting bars are V-shaped.

81. (withdrawn) The stent according to claim 80, wherein the V-shaped connecting bars comprise substantially rectilinear portions.

82. (withdrawn) The stent according to claim 80, wherein the V-shaped connecting bars comprise curved portions.

83. (withdrawn) The stent of claim 79, wherein:

the connecting bars engage a central region of the bar element portions and are adapted to the curvature thereof.

84. (withdrawn) The stent of claim 80, wherein the connecting bars each engage the bar element portions at a turning point in the meander configuration.

85. (withdrawn) The stent of claim 82, wherein the connecting bars each engage the bar element portions at a turning point in the meander configuration.

86. (previously presented) The stent of claim 1, wherein a plurality of the lines extending tangentially from the vertices of the V-shapes are co-linear.

87. (previously presented) The stent according to claim 73, wherein a plurality of the lines extending extending perpendicular to a line bisecting an angle of the V-shapes and passing through the vertices of the V-shapes are co-linear.